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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,970	05/22/2006	Jeffrey Thomas Claydon	920602-100445	3450

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EXAMINER

NOVOSAD, CHRISTOPHER J

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3641

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,970	Applicant(s) CLAYDON, JEFFREY THOMAS	
	Examiner Christopher J. Novosad	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 57-87 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 64-87 is/are allowed.
- 6) ☒ Claim(s) 57-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>061407</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-56 have been canceled.

Specification

The abstract of the disclosure is objected to because it contains legal language, specifically “means” in lines 4 and 5. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 57-63 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which applicant regards as the invention.

In parent claim 57, line 10, the recitation “the tines” is indefinite because it is not clear which “tines” are being referred to in the claim. Is the recitation “the tines” meant to refer to the “first tines,” the “second tines,” or both, the “first” and “second” tines? Clarification is required. Dependent claims 58-63 are indefinite for the same reason as parent claim 57.

Claim 62 is further indefinite because it is dependent on canceled claim “51.” Apparently, “51” was meant to be --57-- instead. Clarification as to the proper dependency of claim 62 is required.

Claim Rejections – 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section of this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 57 is rejected under 35 U.S.C. 102(b) as being anticipated by the WO 98/03053 (Skjeveland, Magne) publication which discloses a method of sowing seed comprising the steps of:

- (a) breaking up soil only where seed is to be planted by pulling laterally spaced apart first tines (8, 26 in Figs. 1 and 2) therethrough with the tines set to penetrate a depth which bears a fixed relationship to the depth at which the seed is to be sown, to create a corresponding plurality of shallow trenches of broken up soil with strips of undisturbed soil therebetween,
- (b) at a distance behind and in line with each of the first tines (8, 26, Figs. 1, 2) , introducing seed immediately to the rear of a second tine (29 in Figs. 1 and 2; 10 in Fig. 4) via seed delivery means (45, Fig. 4) associated with the second tine (29, Figs. 1, 2), the penetration depth of the second tine (29) being equal to the depth at which the seed is to be sown in the trench, and
- (c) flattening the soil in the trenches by leveling means (11 in Figs. 1, 2) aligned with and following the tines (see Fig. 2 which shows the leveling means 11 to be aligned with and following the tines 8, 26).

Claim Rejections – 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 58, 60 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over the WO 98/03053 (Skjeveland, Magne) publication as applied above to parent claim 57.

These claims distinguish over the WO 98/03053 (Skjeveland, Magne) publication in reciting that “the second tines penetrate to substantially the same depth as the first tines” (claim 58), that “the second tines penetrate to part of the depth of the trenches created by the first tines” (claim 60), and that “the second tines penetrate to a greater depth than the first tines” (claim 62).

However, the WO 98/03053 (Skjeveland, Magne) publication clearly teaches (page 5, lines 20-35, page 7, line 13 to page 8, line 5) depth control of the soil cultivator, i.e. depth control of the first tines (8, 26) relative to the second tines (29) in Figs. 1 and 2, by means of the packers 9 and 11, as well as by the adjustment mechanism 4 (Fig. 1).

Therefore, in view of the above-noted teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have carried out the method disclosed in the WO 98/03053 publication so that the second tines (29) penetrate “to substantially the same depth” as the first tines (8, 26), as called for in claim 58, “to part of the depth of the trenches” created by the first tines, as in claim 60, and “to a greater depth than” the first tines, as recited in claim 62, respectively, since these recited “depth” recitations merely represent obvious engineering design choices to one of ordinary skill in the art at the time the

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invention was made in carrying out the method of the WO 98/03053 publication for optimum seed planting performance.

Claims 59, 61 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over the WO 98/03053 (Skjaeveland, Magne) publication, as applied above to claims 58, 60 and 62, in view of Magne Skjaeveland (U.S.P. 6,138,771).

Claims 59, 61 and 63 further add to claims 58, 60 and 62, respectively, the feature that the second tines have “laterally extending wings” so as “to break up and lift the soil to facilitate the deposition of seeds at the bottom of each trench,” (claim 59), to “lift and spread the soil broken up by the first tines near the top of each trench” (claim 61), and to break up and lift the soil at the bottom of the trenches formed by the second tines to facilitate the deposition of seeds at the bottom of each trench formed by the second tines” (claim 63).

However, the patent to Magne Skjaeveland (U.S.P. 6,138,771, Figures 4-6, col. 4, line 54 to col. 5, line 36) clearly teaches the use of laterally-extending wing formations 110, 112 on a tine 100 so as to break up and lift the soil to facilitate the deposition of seeds, as called for in respective claims 59, 61 and 63, above.

It would, therefore, have been obvious to one of ordinary skill in the art at the time the invention was made to have carried out the method disclosed in the WO 98/03053 publication with each of the second tines (29) thereof including laterally-extending wing formations 110, 112 of Magne Skjaeveland (U.S.P. 6,138,771, Figures 4-6, col. 4, line 54 to col. 5, line 36) so as to break up and lift the soil to facilitate the deposition of seeds, as called for in respective claims 59, 61 and 63, above.

Allowable Subject Matter

Claims 64-87 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J. Novosad whose telephone number is 571-272-6993. The examiner can normally be reached on Monday-Thursday 5:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached at 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher J. Novosad/
Primary Examiner, Art Unit 3641

August 28, 2007